

twice, then the ensuing plants will more and more assume the character of *S. leucophylla*. However, through various genetic activities during meiosis and mitosis that we will not go into here, individual characters of the *other* parent (such as the "hairiness" of *S. purpurea* in that area) may persist in a plant that looks very much otherwise like *S. leucophylla*. Furthermore, such a plant may self and the seedling progeny—many or most—will possibly maintain the "hairy" characteristic, resulting even in a small stand of such plants. In situations such as this we enter the vague area of what constitutes a permanent genetic variant resulting in a new taxonomic *form* or *variety*, the choice often depending on the experience and judgment of the investigator and what evidence is available to study. In a genus

whose species and their hybrids interbreed so easily and prolifically, such judgments have to be made with caution. I believe a similar cause has resulted in the "stocky, hairy variant of *S. alata*" that we have read about (and which I have seen in the field). The residual "stockiness" and "hairiness," and side by side comparisons with "pure" *S. alata* strongly suggest residual genetic features of *S. purpurea* ssp. *venosa* also.

REMINDER

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THE CATALOGING OF CP STATIONS

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Due to the fact that carnivorous plants are facing a daily confrontation with man's follies, conservation will surely become a necessary fact of life for all of us (Campbell 1983; Mohlenbrock 1983). The number of "regional experts" will have to increase and the collection and monitoring of data from known CP stations continue. Of all the information accumulated by CP enthusiasts, the cataloging of stations is the most essential type of preparation needed, and yet is the most frequently neglected.

I view cataloging (using the "Carnivorous Plant Station Survey and Record" format), as a multi-purpose tool that could serve the needs of the ICPS in building a foundation for a more positive future for CP and their habitats. As a result, to ensure the preservation of record sheets and the utilization of the catalog system to its maximum potential, a depository would be established. For example, one set of data sheets is retained

by the collector as a sort of accession file and a duplicate set of record sheets deposited with and becoming the property of the ICPS, a university with parallel interests or the Nature Conservancy. The data could then be available to the academic community upon request.

There are several types of cataloging systems: straight coding, serial, etc.; but for more practical purposes an intermediary cataloging system is preferable. This enables one to refer to specific stations in publications and discussions, while still preventing disclosure of the exact locations to individuals possessing questionable motives. To reduce the possibilities of exploitation, authors currently must resort to various degrees of vagueness when discussing CP locations resulting from field work (Schnell 1980, O'Neil 1983). With the catalog system, authors can freely discuss specific stations such as Thomas Can-On-27, and the reader

wouldn't know if said station was located at Goderich or Hamilton. At the same time, if Mr. Jones writes about work conducted at Can-On-27, the membership would know that this is the same station visited by Mr. Smith several years earlier, and then the data could be correlated.

The proposed system could also apply when labeling illustrations. Thus Wau-goshance Point (Mellichamp 1982, p. 11) would appear as Lewis 22-Em-5 and Crestview—off 1-10 (Miller 1979, p. 128) as Brown 9-01-98.

The station number is formulated by first using a number corresponding with the state. For example, 38- is the key designation for Pennsylvania, 9-Florida, 12-Hawaii. I use a two-letter initial for the county. Thus 38-Yo- is York County, Pennsylvania. International coding is modified as needed. For example, Canadian stations could be designated Canada-NB- for New Brunswick, -Ne- for Newfoundland. The last segment of this code is a numerical designation for a specific station where CP are located within the county or province. Thus 38-Yo-1 is the Wilkens station at Dillsburg, which is station No. 1 in my York County survey.

The station name is taken from the name of the landowner at the time when the station was first recorded. Since CP habitats vary in size, from small roadside ditches to massive areas covering acres of landscape, stands of CP are commonly dissected by property lines, roads and creeks. Where a property line dissects a particular stand of CP, the stand would be designated as separate stations. For example, Thomas 38-Yo-12, Haines 38-Yo-13. I prefer also to assign separate station numbers to stands of CP found on the same property, if they are dissected by farm lanes, creeks or fences. Landowners periodically modify sections of property which could affect certain stands of CP and not others. Thus, the Haines station might warrant more than one catalog sheet. For example, Haines 38-Yo-13, Haines 38-Yo-14.

The catalog forms themselves may vary, but a pack of filing cards is clumsy and

cards get misplaced in the series. Ledgers are inadequate because additions must be constantly made to all parts of the catalog and one cannot allow for this in a bound volume. I prefer to keep records on loose sheets of paper of uniform size mounted in a loose-leaf or spring-back binder. A cross index can also be kept for stations by species.

Depending on the depository's resources, a computer can be utilized to store and retrieve data at various levels of complexity, but the maintenance of record sheets and topographic maps would continue.

The Topographic Survey maps are an integral part of the catalog and the station numbers are marked directly on these sheets. The USGS 7.5 min. series is preferred because it shows more detail and is recommended over the older 15 min. series. With the record sheet at hand to check species distribution and a topographic map showing station locations, a member can plan out a more successful and economical field project without leaving the depository. Less time searching, reduced gas usage and more time for research is the objective (Schnell and Sivertsen 1974).

When a record sheet is received by the depository, the station location is checked with the topographic maps to determine if this location has been submitted earlier by another member. If the station is on record, the member is informed of the station's recorded date and is given (for his catalog), the RECORDED station name and number. Note: the member might receive a different station name, due to an earlier land owner. The RECORDED name and number is RETAINED thereafter and referred to. All members possessing a record sheet for the SAME CP station will in effect, have identical names and numbers on file.

The success of the catalog system depends on accurate data. As a result a "Carnivorous Plant Station Survey and Record" form is VALID only if the following items are met:

1. All data must be collected by the SUBMITTER (barring technical assistance).
2. Transferring of data from herbarium records or other written sources to forms is NOT PERMITTED.
3. The submitter must obtain data through ACTUAL field research and observations.
4. Date information collected MUST appear on form.

An effort should be made to complete all parts of the form and submit it as soon as possible.

When I go into the field to locate new CP stations, I take a "field kit" containing various items and note paper to write on so my catalog forms are kept clean. I make an accurate sketch of the station if one is located, showing the extent of the CP stand on the property outlined in broken lines. I transfer this sketch later to the forms. Local residents are questioned about ownership of property, but if necessary, the owner's name and address can be obtained through township assessors and county land office records.

One should try to catalog stations existing in his own county or area before "branching out" to other areas. This will make periodic monitoring of recorded stations (which is needed for the depository) easier to handle. This is the whole concept of the "regional expert" (Schnell 1972).

For a complete geographical record and monitoring base (Schnell 1976, Wilson 1981), federal, state and county parks, preserves and other land holdings, must be surveyed and included in the catalog if CP exist on the property. The name of the park, etc., is recorded as owner, but the landowner's name prior to acquisition or the park director's name is used as station name for anonymity. The multiple station code might also apply as mentioned earlier.

With membership cooperation and the eventual accumulation of record sheets from all sectors supporting CP, the ICPS would have an effective tool for field research and analysis.

There always has been and always will be, the need for a link between the mosquito hordes and the laboratory and it's not my intention to foster any antisocial atmosphere between our "regional experts" and the remainder of the membership. The fact is that displacements occur, either because of economics, waning interests or age factors, resulting in an area not being monitored and "lost." The breaking of this important link can result in years spent trying to recover these misplaced CP stations. The proposed catalog system would reinforce these vital links. With the depository holding data sheets on important CP habitats, another member can be asked to take over. Depository monitoring can also reflect geographical gaps that would justify field work.

Regarding conservation (which is a primary function of a number of organizations), the ability to formulate and expedite appropriate legislation at times is halted because of inadequate, incorrect, and outdated records. The ICPS and conservation groups could support each other in their endeavors to ensure a future for our wetlands, currently flooded with uncertainties.

Editorial comment:

Of course, the first problem would be to arrive at a total acceptance of what format to use for the data sheet, who would actually do the recording at whatever depository is chosen, and who has access to complete data held by the depository. The concept of "regional experts" and periodic monitoring of habitats is a good one, and is being implemented in a few areas. It would make it a lot easier if longitude and latitude degrees are used with reference to the topo maps. Let us hear from readers on their thoughts about this issue.

REFERENCES

- Campbell, Faith Thonipson
1983 Carnivorous Plants Deserve Protection
CPN 12(4): 96-98
- Mellichamp, Larry
1982 Field Studies on CP at UMBS
CPN 11(1): 10-11,13
- Miller, Jim
1979 "Sarracenia flava"
CPN 8(4): 128

- Mohlenbrock, Robert H.
1983 Where Have All The Wildflowers Gone?
Macmillan Pub. Co. New York
- O'Neil, Wendy
1983 A Preliminary Report on the Pollination of a *Sarracenia purpurea* in a Forest-Swale Ecotone.
CPN 12(3): 60-62,74
- Schnell, Donald E.
1972 Observations on *Sarracenia oreophila*
CPN 1(1): 7
- 1976 Carnivorous Plants of the United States and Canada
- John F. Blair Pub., Winston-Salem, N.C.
p. 37
- 1980 *Drosera linearis*
CPN 9(1): 16-18
- Schnell, D.E. and Sivertsen, R.
1974 A Late Summer CP Foray into Michigan and Ontario
CPN 3(4): 50-51
- Wilson, Jeannie
1981 A Northern Extension of *Pinguicula pumila* Michx.
CPN 10(4): 90,93

CARNIVOROUS PLANT STATION SURVEY AND RECORD

STATION NUMBER _____ STATION NAME _____

SECTION I: LOCATION

STATE _____ COUNTY _____ TOWNSHIP _____

NEAREST TOWN _____ NEAREST ROAD _____

OWNER _____ ADDRESS _____

MAP REFERENCE: To locate the station on topographic map, measure in centimeters from the bottom printed edge upward, and the right printed edge inward.

7.5 QUAD. NAME _____ EDITION _____

UP _____ ACROSS _____

MAP SKETCH: Sketch the station location on the back of this sheet (Identifying by some point of reference, house, bridge, road, intersection, etc.)

SECTION II STATION DATA

STATION TYPE: (ROAD DITCH, LAKE SHORE, FEN, ETC.) _____

SOIL EVALUATION: _____

SOIL PH _____ DEPTH MONITORED _____ SURFACE WATER PH _____

LIST SPECIFIC CP REPRESENTED AT THIS STATION:

DATE INFORMATION COLLECTED _____

POSSIBILITIES OF DESTRUCTION:

SUBMITTED BY _____ DATE _____

ADDRESS _____